

REMARKS

Claims 1 to 8 are pending. Reconsideration of the application is requested.

Applicant noted that the initialed Form PTO-1449 filed with the Information Disclosure Statement dated November 28, 2006 had notations on it including “*IFW did not receive” on the bottom of the Form 1449 and “The PTO did not receive the following listed items: Missing Pages” on the right-hand side of the Form 1449. However, applicant noted that each reference on the 1449 was initialed by the Examiner. Consequently, the applicant’s attorney called the Examiner to verify that all references were received. Applicant thanks the Examiner for the phone call in which the Examiner stated that all cited references had been received by the Examiner and that the notations on the Form 1449 were in error.

§ 103 Rejections

Claims 1, 2, 4-6, and 8 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 3,036,928 to Poole (“Poole”) in view of U.S. Patent No. 6,957,869 to Sawtelle (“Sawtelle”) and further in view of Boeing A&M Environmental Technotes, vol. 6, No. 2 (May 2001) (“Boeing”). Specifically, the Examiner admits that Poole is silent as to the marking material being temporary and the layer and microballs being thermally-expansible (Office Action, page 2). However, the Examiner states that Sawtelle teaches temporary markers because Sawtelle states that road markings must eventually be removed, so all road markings are effectively temporary (Office Action, page 2-3). The Examiner also states that Boeing teaches thermally-expansible microballs (Office Action, page 3). The Examiner then concludes that it would have been obvious to one of ordinary skill at the time of the invention to “modify the microballs and layer of Poole to be thermally-expansible by using thermally-expansible microballs, as taught by Boeing. . . in order to provide the means to assist in the markers removal so that it can be easily removed” (Office Action, page 3). Applicant respectfully disagrees with this rejection.

Independent claims 1 and 5 recite “a thermally-expansible layer” and “thermally-expansible microballs.” Poole describes a light reflective, traffic-marking composition capable of retroreflecting light from such sources as headlight beams (Abstract). As is shown in FIGS. 1 and 2 of Poole, the composition of Poole includes transparent glass beads that retroreflect light

(see, for example, col. 4, lines 65-75). Boeing describes applying a composition including “microspheres . . . that enclose a gas, which expands when exposed to elevated temperatures” to “paint booth grates” and “fiberglass floor grates” (Boeing, page 1). The Examiner suggests that it would have been obvious to one of ordinary skill at the time the invention was made to replace the glass beads of Poole with the microspheres of Boeing.

Applicant first asserts that there is no suggestion or motivation in either of these references (or anything cited or argued by the Examiner) for the replacement of the glass beads of Poole with the microspheres of Boeing. As such, the Examiner has failed to make a prima facie case of obviousness.

Applicant also asserts that the replacement of the glass beads of Poole with the microspheres of Boeing would make the composition of Poole unfit for its intended use. The composition of Poole is meant to be a light reflective, traffic-marking composition capable of retroreflecting light from such sources as headlight beams (see, for example, the Abstract of Poole). If the optically active glass beads of Poole were replaced with the microballs of Boeing, the resulting composition would not be optically active and would thus be unfit for its stated purpose. Consequently, there can be no motivation to replace the glass beads of Poole with the microspheres of Boeing. Further, one of ordinary skill in the art at the time the invention was made would not have been motivated by the teaching of Boeing to destroy the fundamental function of the Poole article in order to add thermally-expansible microballs and make the Poole article removable.

Applicant additionally asserts that Poole discloses a retroreflective composition containing binder, pigment, and glass beads. Poole describes the binder permanently holding in place the beads, pigment, and filler (col. 4, lines 60-64). Consequently, Poole discloses marking materials that are intended to be permanent. One of ordinary skill in the art at the time the invention was made would not have been motivated by the teaching of Boeing to alter one of the functions of the Poole article in order to add thermally-expansible microballs and make the Poole article removable.

Applicant lastly asserts that Poole describes a light reflective, traffic-marking composition capable of retroreflecting light from such sources as headlight beams (see, for example, the Abstract of Poole). In contrast, Boeing describes application of a composition including “microspheres . . . that enclose a gas, which expands when exposed to elevated

temperatures" to "paint booth grates" and "fiberglass floor grates" (Boeing, page 1). Those of ordinary skill in the art at the time the invention was made who were working in the area of traffic marking removal would not think to look at art in the area of paint booth grates.

Applicant believes that the rejection of independent claims 1 and 5 under 35 USC § 103(a) as being unpatentable over Poole, Sawtelle, and Boeing has been overcome and should be withdrawn.

Claims 3 and 7 stand rejected under 35 USC § 103(a) as being unpatentable over Poole in view of Sawtelle and further in view of Boeing and further in view of the Matsumoto website ("Matsumoto"). The Examiner admits that Poole, Boeing, and Sawtelle fail to describe the "microballs having an expandability of at least ten times in terms of volume" (Office Action, page 5). However, the Examiner states that Matsumoto describes this claim element and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine these four references.

Claims 2-4 and 6-8 each add additional features to independent claims 1 and 5, respectively. Applicant believes that independent claims 1 and 5 are patentable for the reasons given above. Thus, applicant asserts that claims 2-4 and 6-8 are patentable.

In summary, applicant believes that the rejections of claims 1-8 under 35 USC § 103(a) have been overcome and should be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance.

Respectfully submitted,

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